GPS/GLONASS/Beidou Ceramic Patch Antenna

APARM3503-SG3

Features

• Multiband GPS/GLONASS/Beidou/GNSS patch
• Low VSWR of 1.8
• Gain of 4.0/3.0/4.5 dBi
• RHCP polarization
• 35.0 x 35.0 x 3.0 mm

Applications

• GPS/GLONASS/Galileo/Beidou applications
• IoT
• M2M
• Remote technology monitoring
• Geofencing
• Surveying and mapping systems
• Logistics

Electrical Characteristics

<table>
<thead>
<tr>
<th>Item</th>
<th>Spec*/**</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Receiving Frequencies (MHz)</td>
<td>1561.098±2.046</td>
<td>1575.42±1.023</td>
</tr>
<tr>
<td>Center Frequency</td>
<td>1598MHz ±6.0MHz</td>
<td></td>
</tr>
<tr>
<td>VSWR</td>
<td>1.8 :1 max</td>
<td></td>
</tr>
<tr>
<td>Bandwidth</td>
<td>35MHz</td>
<td></td>
</tr>
<tr>
<td>Gain @ Zenith (dBi) Typical</td>
<td>+4.0 dBi</td>
<td>+3.0 dBi</td>
</tr>
<tr>
<td>Impedance</td>
<td>50 Ω</td>
<td></td>
</tr>
<tr>
<td>Operating Temperature</td>
<td>-40°C ~ 105°C</td>
<td></td>
</tr>
<tr>
<td>Frequency Temperature Coefficient</td>
<td>-40°C ~ 105°C</td>
<td></td>
</tr>
</tbody>
</table>

** The antenna has the electrical characteristics given in the Table in the temperature range of -40°C to +105°C and under the environmental conditions of +40°C and 0-95% r.h.
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Outline Dimensions

Top View

Bottom View

Dimensions (mm)

Layout Dimensions

Top Side

Bottom Side

\[
\begin{align*}
\text{Top Side} & : \varnothing 3 \\
\text{Bottom Side} & : \varnothing 0.95 \text{ Thru hole} \\
\text{TOL:} & \pm 0.20 \\
\text{UNIT:} & \text{mm}
\end{align*}
\]
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35.0 x 35.0 x 3.0 mm
RoHS/RoHS II Compliant
MSL = N/A

Dimensions (mm)
Tape: Double coated adhesive tape for industrial use, thickness 0.12mm
Fixture Dimensions

Dimensions (mm)

Test Fixture Antenna Set-Up and Measurements
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35.0 x 35.0 x 3.0 mm
RoHS/RoHS II Compliant
MSL = N/A

Antenna Response – Return Loss S11

Antenna Response – Smith Chart

Ground Plane 70 x 70 mm
**Soldering - Feed Pin Temperature - Range**

Feed pin temperature range Maximum temperature for soldering of feed pin is +290°C for 3 second

**Packaging**

**DA Tray Packaging**
Tray: 12pcs per Tray
**GPS/GLONASS/Beidou Ceramic Patch Antenna**

**APARM3503-SG3**

**Carton Packaging**

Inner Box: 72pcs (6 trays x 12pcs)

Outer Box: 288pcs (4 inner boxes x 72pcs)

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